

What is claimed is:

1. A cut-forming machine for forming a circular cut in a resin layer formed on one side of a disk-shaped substrate to be formed with a central hole by a punching machine, such that the circular cut has a diameter larger than a diameter of the central hole and surrounds a portion of the disk-shaped substrate where the central hole is to be formed,
 - the cut-forming machine comprising:
 - a table for supporting the disk-shaped substrate with the resin layer facing upward;
 - a cut-forming blade section for forming the cut in the resin layer by being pushed into the resin layer, said cut-forming blade section having a hollow cylindrical shape;
 - a moving mechanism for moving at least one of said table and said cut-forming blade section toward the other of said table and said cut-forming blade section, thereby pushing said cut-forming blade section into the resin layer;
 - an urging portion that is disposed in a central portion of said cut-forming blade section such that said urging portion is allowed to slide in directions of movement of the at least one of said table and said cut-forming blade section, caused by said moving mechanism, toward and away from the other of said table and said cut-forming blade section; and
 - an urging device for urging said urging portion, from at least a time point of completion of pushing said cut-forming blade section into the resin layer by said moving mechanism to a time point of removal of said cut-forming blade section from the resin layer by

said moving mechanism, thereby causing said urging portion to urge a central portion of the disk-shaped substrate toward said table.

2. A cut-forming machine as claimed in claim 1,
5 wherein said urging device is implemented by a coil spring.

3. A cut-forming machine as claimed in claim 1,
wherein said table has a positioning protrusion formed
on a central portion thereof in a manner protruding
10 therefrom, for being fitted into a positioning hole
that is formed in the central portion of the disk-shaped substrate and has a diameter smaller than the diameter of the central hole.

4. A cut-forming machine as claimed in claim 1,
15 wherein said cut-forming blade section has an annular blade formed on a bottom surface thereof such that said annular blade protrudes from the bottom surface by a length equivalent to a thickness of the resin layer,
and

20 wherein said moving mechanism moves said cut-forming blade section such that the bottom surface of said cut-forming blade section is brought into surface contact with the surface of the resin layer.

5. A cut-forming machine as claimed in claim 1,
25 wherein said cut-forming blade section is formed with either a single-edged blade having a cutting edge formed on an outer periphery thereof, or a double-edged blade having cutting edges formed on both of the outer periphery and an inner periphery thereof.

30 6. An optical recording medium-manufacturing apparatus for manufacturing an optical recording medium by forming the central hole in the disk-shaped substrate, comprising:

the cut-forming machine as claimed in any one of claims 1 to 5; and

the punching machine having a punching blade section for being pushed into the portion of the disk-shaped substrate where the central hole is to be formed, for punching the central hole.